

I Claim:

1. A method of transforming color values of a first device-dependent color space into color values of a second device-dependent color space, to effect a substantially identical visual impression of colors reproduced in the first and second color spaces, the method which comprises:

providing a first color profile characterizing the first color space and providing a second color profile characterizing the second color space;

wherein the first and second color profiles specify an association between the color values of the first and second device-dependent color spaces and the color values of a device-independent color space;

wherein a white point of the first device-dependent color space, a white point of the second device-dependent color space, and a white point of the device-independent color space are described by device-independent white point values;

determining relative color values of the device-independent color space from the color values of the first device-dependent color space by way of the association specified in the first color profile;

converting the relative color values into absolute color values in a ratio corresponding to a ratio of the values of the white point of the first device-dependent color space and the white point of the device-independent color space;

determining chromatically adapted color values from the absolute color values by way of a chromatic adaptation transformation;

converting the chromatically adapted color values into relative chromatically adapted color values in a ratio corresponding to a ratio of the values of the white point of the device-independent color space and the white point of the second device-dependent color space; and

determining color values of the second device-dependent color space from the relative chromatically adapted color values by way of the association specified in the second color profile.

2. The method according to claim 1, which comprises carrying out the chromatic adaptation transformation by way of a Bradford matrix (B), with:

$$B = \begin{pmatrix} 0.8951 & 0.2664 & -0.1614 \\ -0.7502 & 1.7135 & 0.0367 \\ 0.0389 & -0.0685 & 1.0296 \end{pmatrix}.$$

3. The method according to claim 1, which comprises carrying out the chromatic adaptation transformation in accordance with a von Kries matrix.

4. The method according to claim 1, which comprises using color profiles formatted in accordance with the ICC specification (International Color Consortium).

5. The method according to claim 1, which comprises leaving unchanged the associations contained in the color profiles between the color values of the device-dependent color space and the color values of the device-independent color space.